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To: Mr. Frank S. Pokrywka
Environmental Health Engineer
Homestead Works



file 2
United
States
Steel
Corporation

PLAINTIFF'S
EXHIBIT
USX-129

Interorganization Correspondence

Date: November 5, 1981

From: J. F. Quealy
Senior Environmental
Health Engineer

Subject: Analysis of Insulation Material

As requested, Environmental Health has analyzed a bulk sample of insulation material, currently in use at Carrie Furnaces, for determination of possible asbestos content. Visual examination of the material showed it to have a soft, white, fluffy appearance with an obvious fibrous component.

Several fibers were removed from the sample and examined under polarized light microscopy at 400 magnification. Numerous fibrous bundles consisting of individual fibrils were clearly observed. In addition, the fibers were determined to be anisotropic, i.e., they exhibited more than one index of refraction when viewed under crossed polars. All forms of asbestos exhibit this birefringent property.

Finally, the sample was analyzed by the dispersion staining technique, in which the fibers are mounted in a liquid of known refractive index and examined under 100 magnification using a specially designed microscope objective. Using this method to positively identify the fibers, the sample was found to contain an extremely high percentage of amosite asbestos and a lesser, but still significant, amount of chrysotile asbestos.

In summary, our tests showed that asbestos is definitely a major component of this insulation material.

James F. Quealy

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